REMARKS

Claims 11-20 are pending in the application. Claims 11 and 16 have been amended by the present amendment to correct inadvertent typographical errors, as noted in the Office Action, thereby obviating the claim objections.

Applicants' claimed invention is directed to a method and an arrangement for motion estimation in a digitized image having pixels. As recited in claims 11 and 16, the sizes of first and second search areas are varied as a function of picture quality such that if the picture quality of a first picture block is **higher** than the picture quality of a second picture block, then the size of the first search area is **larger** than the size of the second search area, whereas if the picture quality of the first picture block is **lower** than the picture quality of the second picture block, then the size of the first search area is **smaller** than the size of the second search area. For example, referring to FIGS. 1A to 1C, the size of the first search area 114 is **larger** than the second search area 116, because the first picture block 103 has a **higher** picture quality than the second picture block 104 (see, e.g., specification at page 10, last paragraph).

Claims 11-20 were rejected under 35 USC 102(b) as being anticipated by U.S. Patent 5,537,155 to O'Connell et al. (hereinafter "O'Connell"). This rejection is respectfully traversed.

O'Connell does not teach or suggest a method or arrangement for motion estimation in which the sizes of first and second search areas are varied as a function of picture quality according to which the first picture block and/or the second picture block are coded, such that if the picture quality of the first picture block is **higher** than the picture quality of the second picture block, then the size of the first search area is **larger** than the size of the second search area, whereas if the picture quality of the first picture block is **lower** than the picture quality of the second picture block, then the size of the first search area is **smaller** than the size of the second search area.

As noted in the Amendment dated December 1, 2004, in O'Connell, each video block of a video frame is overlaid on a comparison video block of a previously stored video frame to determine where objects have moved (see column 3, lines 16-21). This overlaying is done in a series of three different comparison densities, so that a previously stored video frame that most closely resembles the present video block is used to encode the present video block (see column 3, lines 21-38).

In the Office Action of 02/14/2005, reference numeral 400 was cited as corresponding to a "first search area", and reference numeral 401 was cited as corresponding to a "second search area."

However, reference numerals 400-402 in O'Connell refer to displacement patterns of different densities. For example, as indicated in column 5, lines 17-20, the first search point displacement pattern 400 "should be very dense," whereas the second search point displacement pattern 401 "should be moderately dense" (column 5, lines 23-27). These displacement patterns are used for comparing video blocks of a current video frame with video blocks of a previously stored video frame.

In contrast, the Applicants' claimed invention requires the sizes of first and second search areas to be varied as a function of picture quality according to which the first picture block and/or the second picture block are coded.

In O'Connell, there is no connection between the size of any search area and the picture quality of the respective picture block in such a search area. Therefore, even if the displacement patterns 400-402 are considered "search areas," O'Connell does not teach or suggest any variation in the sizes of these displacement patterns 400-402 as a function of picture quality.

In O'Connell, reference numerals 303-305 designate search regions. O'Connell simply does not teach or suggest any correlation between the sizes of the search regions and picture quality of the picture blocks in these search regions.

Referring to FIG. 3 of O'Connell, a dense displacement pattern is used in the first search region 303, while less dense displacement patterns are used in search regions 304 and 305 (see column 4, lines 54-64). In O'Connell, the displacement patterns 400-402 are used only for comparing video blocks of the current video frame with video blocks of the previous video frame. Therefore, the sizes of the circles representing displacement patterns 400-402 in FIG. 4 do not relate to picture quality of the respective picture blocks. The sizes of these circles were chosen purely as an example to explain the different densities of the displacement patterns.

Moreover, even if the sizes of the circles representing the displacement patterns in FIG. 4 were compared with the sizes of the search areas, it is clear from FIG. 4 that the circle for the "third search point displacement pattern" 402 is larger than the circles for the displacement patterns 400 and 401 – even though the displacement pattern 402 has the lowest density.

Claims 11 and 16 require that the size of a search area is larger if the picture quality of the picture blocks in that search area is higher. However, in O'Connell, the circle for the displacement pattern 402 is ***larger*** than the circles for displacement patterns 400 and 401, even though the displacement pattern 402 has a ***lower*** density.

It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,

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